Habitat Comparisons at End of 75 Years

ASSUMPTIONS
* Sea Elevation Target = -235' msl
* Salinity Target = 30-40 ppt
* Inflow = 600 TAF average annual inflow
* All configurations include pupfish habitat and connectivity

			QUANTITIES							ANNUAL WATER DEMAND (Acre-Feet Per Year)					
	Unit	Annual Water Demand Rate (AF per Acre)	Existing Conditions (at -228' msl)	No Action (@ 958 TAF; -249' msl)	No Action (with Variability - i.e. 600 TAF; -263' msl)	North Sea (at 8 miles north of mid-sea)	South Sea (at 7 miles south of mid-sea)	Combined North (at 12 miles north of mid-sea)	Combined South (at 8 miles south of mid-sea)	Existing Conditions (at -228' msl)	No Action (@ 958 TAF; -249' msl)	No Action (with Variability - i.e. 600 TAF; -263' msl)	North Sea (at 8 miles north of mid-sea)	South Sea (at 7 miles south of mid-sea)	Combined North (at 12 miles north of mid-sea)
Habitat															
Salton Sea Area															
Salinity	ppm	N/A	44,000	145,000	>300,000	30,000 - 40,000	30,000 - 40,000	30,000 - 40,000	30,000 - 40,000						
Surface Area (d)	Acres	N/A	232,000	165,000	123,000	59,000	58,000	63,000	64,000						
Maximum Depth (d)	Feet	N/A	51	29	15	43	40	41	40						
Sea Volume (d)	Acre-Feet	6 (e)	7,391,000	3,045,000	1,015,000	1,784,000	1,013,000	1,066,000	852,000	1200000	894,500	491,400	406,000	408,000	400,000
Shoreline Length (a) (f)	Miles	N/A	100	80	70	40	40	160	160						
Shallow Shoreline Surface Area, 0-.5 ft (d)	Acres	N/A	1,100	1,600	2,000	250	700	1,300	1,300						
Shallow Shoreline Surface Area, 0 - 3 feet (d)	Acres		6,200	9,000	14,800	1,500	4,700	8,500	8,500						
Wetlands (wetted area) (k)															
Existing Freshwater Marsh (Upland) (d)	Acres	N/A	13,500	13,500	13,500	13,500	13,500	13,500	13,500	0	0	0	0	0	0
New Freshwater Marsh (upland) (d)	Acres	5	0	0	0	0	0	0	0	0	0	0	0	0	0
New Freshwater Marsh (in-sea) (d)	Acres	5	0	0	0	10,000	10,000	10,000	10,000	0	0	0	50,000	50,000	50,000
New Shallow Saline Habitat (Supplied by Sea water only) (l)	Acres	0	0	0	0	6,000	6,000	6,000	6,000	0	0	0	0	0	0
New Shallow Saline Habitat (Freshwater mixed w/ Sea water) (b) (d) (l)	Acres	3	0	0	0	0	0	0	0	0	0	0	0	0	0
New Shallow Saline Habitat (Freshwater mixed w/ brine) (c) (d) (l)	Acres	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Estuaries															
Inflow (d) (f)	AFY	N/A	1,200,000	894,500	491,400	406,000	408,000	400,000	399,000						
Islands/Snags															
Islands (f)	Acres	N/A	(f)	(f)	N/A	Create additional	Create additional	Create additional	Create additional						
Snags (f)	Number	N/A	(f)	(f)	N/A	Create additional	Create additional	Create additional	Create additional						
Uplands (agricultural and tree/shrub habitat)															
Irrigated acreage (g)															
Exposed Playa (with AQM)															
Total Exposed Area (Vegetation) (d)	Acres	1	N/A	63,500	108,600	134,000	132,000	140,000	141,000	N/A	63,500	108,600	134,000	132,000	140,000
Brine Edge Crust Formation (d) (h)	Acres	0.25	N/A	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)
Fences/Other (d) (h)	Acres	0	N/A	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)
Brine Pool															
Surface Area (d)	Acres	N/A	N/A	N/A	N/A	29,000	31,000	18,000	17,000						
Brine Volume (d)	Acre-Feet	N/A	N/A	N/A	N/A	82,000	51,000	23,000	18,000						
Maximum Depth (d)	Feet	N/A	N/A	N/A	N/A	6	4	3	2						
Annual Fluctuation	Feet	N/A	1	2	2	2	2	2	2						
Brine Shoreline (a) (d) (f) (j)	Miles	N/A	N/A	all shoreline is brine	all shoreline is brine	50	50	50	50						
Brine Pool Elevation (d) (j)	Feet msl	N/A	N/A	N/A	N/A	-272	-274	-275	-276						
Water Treatment Plant															
Treatment Losses (d) (i)	Acre-Feet	20% of treated volume	none	none	none	yes	yes	yes	yes	N/A	N/A	N/A	10,000	10,000	10,000
									Total Water Use:	1,200,000	958,000	600,000	600,000	600,000	600,000

NOTES:
(a) Includes barrier perimeter as shoreline length.
(b) Dilutes marine water discharged from Sea to 20 ppt.
(c) Assumes that Brine water is pumped and diluted with freshwater to 20 ppt.
(d) Assumes no elevation fluctuation.
(e) Evaporation rate is dependent upon sea salinity level.
(f) Value is to be calculated in future version of this table.
(g) At this time, this project does not include additional water allocation to upland habitats
(h) In this version of the table, these areas have not been defined. Further refinements will be made to determine these areas.
(i) In this example, 60,000 AF is treated to produce 50,000 AF of treated water for diversion to freshwater habitat. This results in treatment losses of 10,000 AF.
(j) Values are approximate and dependent on habitat and other uses.
(k) Allocation of freshwater among various wetland habitats is an item for discussion among the Working Group.
(l) New shallow saline habitat will be created to help offset reductions in shallow water habitat in the Salton Sea and to maximize use of available water for habitat.

GENERAL NOTES:
1) Values presented are based on values at the end of 75 years. CALSIM model is being developed to address questions of phasing and fluctuations caused by monthly and annual hydrology.
2) Work in progress for discussion and input purposes only

Combined South (at 8 miles south of mid-sea)
399,000
0
0
50,000
0
0
0
141,000
(h)
(h)
10,000

600,000